

VILLA SANTANA 480 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SANTANA 480 SC
Other identifier: Prothioconazole 480 SC
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd.
 PO Box 10413
 Aston Manor, 1630, South Africa

Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
 EnviroSure +27 31 205 4918
 (Hazcall24) +27 86 044 4411
 (Client: Villa Crop Protection)
 Griffon Poison Information Centre +27 82 446 8946
 (Client: Villa Crop Protection)
Poisoning Emergency telephone numbers:
 Griffon Poison Information Centre +27 82 446 8946
 Poisons Information Centre +27 861 555 777
Villa Crop Protection Emergency number:
National Safety, Health and Environmental Manager:
 +27 63 698 0668

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
Health		
Oral	Acute Tox. 5	H303
Dermal	Acute Tox. 5	H313
Inhalation	Acute Tox. 5	H333
Environment		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

The most important adverse effects:
Physicochemical effects: None known.
Human health effects: None known.
Label elements:



Signal word: Warning.
Hazard statements:
 H303: May be harmful if swallowed.

H313: May be harmful in contact with skin.
 H333: May be harmful if inhaled.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements:
 P273: Avoid release to the environment.
 P391: Collect spillage.
 P501: Dispose of contents/container to suitable landfill in accordance with local regulations.
Special labelling of certain mixtures: None known.
Other hazards: None known.
Toxicity: Classification according to GHS: Category 5.
 Classification according to WHO: Category 2.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.
Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Prothioconazole	178928-70-6	48 %	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Sodium dodecylbenzene sulfonate	25155-30-0	< 10 %	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Eye Irrit. 2 (H319)
Ethylene glycol	107-21-1	< 10 %	Acute Tox. 4 (H302)

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.

Inhalation: Remove source of contamination or move victim to fresh air. Keep affected person warm and at rest. Supply oxygen if necessary. Obtain medical attention if irritation develops.

Skin: Remove contaminated clothing and shoes, wash before re-using. Flush skin with water and then wash with soap and water. Seek medical attention if skin irritation persists.

Eyes: Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

Ingestion: Seek medical attention or call a poison control centre for treatment advice. Rinse mouth and give victim plenty of water to drink. Do not induce vomiting unless

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instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.
Anticipated acute effects: None known.
Anticipated delayed effects: None known.
Most important symptoms/effects: None known.
Advice to physician: Treat symptomatically and supportively. No specific antidote known.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with water spray, carbon dioxide, dry powder or alcohol-resistant foam.
Unsuitable Extinguishing Media: High volume water jet.
Specific hazards: During a fire, irritating and possibly toxic gases may be generated.
Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Contain waste and fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.
Personal protective equipment: Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Do not breathe in fumes. Ventilate area of spill or leak, especially in contained areas. Avoid contact with eyes and skin.
Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.
Emergency procedures: Evacuate unprotected personnel and animals.
Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water as the product is classified to be very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be immediately reported to the police and the Department of Water/Environmental Affairs.
Methods and Materials for Containment: Contain spilled product by diking area with sand, silica gel, earth or clay.
Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum,

scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent (i.e. organic solvent, detergent bleach or caustic). Collect washings and add to the drums already collected. Contaminated soil may have to be removed and disposed of. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:
Precautions for safe handling: May be harmful if swallowed. Avoid contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.
General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used again.
Storage:
Conditions for safe storage: Store in its original container in dry, cool, well-ventilated area. Avoid excessive heat. Protect from freezing. Not to be stored next to foodstuffs, feed and water supplies. Keep out of reach of children, uninformed persons and animals. Do not contaminate other pesticides and fertilizers.
Incompatible substances and mixtures: Refer to product label.
Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Prothioconazole	-	1.4 mg/m ³ (TWA)	OES

Engineering Controls: It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne

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concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Personal Protective Equipment:

Respiratory Protection: An approved full-face respirator suitable for protection from spray or mists of pesticides is required. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

Hand Protection: Employee must wear appropriate chemically resistant gloves e.g. nitrile rubber gloves, to prevent contact with this mixture.

Eye Protection: Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if a face shield is not used.

Skin and Body Protection: Employee must wear appropriate protective clothing and rubber boots to prevent skin contact with this substance.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this mixture; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Off-white liquid suspension.
- Odour:** Slight characteristic odour.
- pH:** 7.0 @ 20°C.
- Melting point:** Not available.
- Freezing Point:** Not available.
- Boiling Point:** Not available.
- Flash Point:** Not available.
- Flammability:** Not flammable.
- Upper/lower explosion limits:** Not available.
- Vapour Pressure (mm Hg):** Not available.
- Relative Vapour Density:** Not available.
- Density/Relative density:** 1.18 g/cm³ @ 20°C.
- Solubility:** Suspends in water.
- n-octanol/water partition coefficient:** Not available.
- Auto-ignition temperature:** Not available.
- Decomposition temperature:** Not available.
- Viscosity:** Not available.

10. STABILITY AND REACTIVITY

Chemical Stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

Storage stability: Stable for up to 2 years when stored in a dry, cool covered warehouse in original, well-labelled containers. Store at low temperature conditions, below 50°C, preferably below 30 °C and not for prolonged periods in direct sunlight.

- Reactivity:** None known.
- Possibility of Hazardous Reactions:** None known.
- Conditions to Avoid:** Protect from freezing, extreme temperatures and direct sunlight.
- Incompatible Materials:** Store in the original container.
- Hazardous Decomposition Products:** Not available.

11. TOXICOLOGICAL INFORMATION

- ACUTE TOXICITY:**
Based on experimental data.
Oral LD₅₀ (24 h) rat 5000 mg/kg.
Dermal LD₅₀ (24 h) rat >2000 mg/kg.
Inhalation LC₅₀ (4 h) >5,124 mg/l air.
Skin Irritation/Corrosion: Not classified as a skin irritant.
Eye Damage/Irritation: Not classified as an eye irritant.
Skin Sensitization: Not considered as positive for skin sensitization.
Respiratory Sensitization: Not available.
Reproductive cell mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Specific target organ toxicity – single exposure: Not available.
Specific target organ toxicity – repeated exposure: Not available.
Aspiration hazard: Not available.
Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

- Inhalation:** May be harmful if inhaled.
- Skin contact:** May be harmful in contact with skin.
- Eye contact:** None known.
- Ingestion:** May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic life with long lasting effects.

ECOTOXICITY DATA: Based on active ingredient.

Fish:		
LC ₅₀ (96 h)	Rainbow trout	1.83 mg/l.
Daphnia:		
Acute LC ₅₀ (48 h)		1.30 mg/l.
Algae:		
E _b C ₅₀ subchronic	<i>P. subcapitata</i>	1.10 mg/l.
E _r C ₅₀	<i>P. subcapitata</i>	2.18 mg/l.
Birds:		
Acute oral LD ₅₀	Bobwhite quail	>2000 mg/kg.
Dietary LC ₅₀ (5 d)	Bobwhite quail	>5000 mg/kg.
Bees:		
Not harmful.		
LD ₅₀ (oral)		>71 µg/bee.
(contact)		>200 µg/bee.

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Worms:

LC₅₀ (14 d) Earthworms >1000 mg/kg dry soil.

Plants:

The metabolism of prothioconazole proceeds through oxidative and cleavage reactions. The major metabolites are prothioconazole-desthio and triazolylalanine, triazolylhydroxypropionic acid and triazolylacetic acid. No free 1,2,4-triazole was detected in any plant matrix.

ENVIRONMENTAL EFFECTS:

Persistence and degradability: Prothioconazole is rapidly degraded to prothioconazole-desthio and prothioconazole -S-methyl. Parent compound and metabolites show low potential for leaching or accumulation. For prothioconazole, prothioconazole-desthio and prothioconazole-S-methyl, soil DT₅₀ (lab., 20°C) 0.07-1.3 d, 7-34 d, and 6-46 d, resp.; K_{oc} 1765 ml/g, 523-625 ml/g and 1974-2995 ml/g, resp. Prothioconazole degraded rapidly in water/sediment systems under aerobic conditions (DT₅₀ for total system 2-3 d); major metabolites are prothioconazole-desthio and 1,2,4-triazole (detected in the water layer) and prothioconazole-S-methyl (in sediment).

Bio-accumulative Potential: Does not bio-accumulate.

Mobility in soil: Slightly mobile in soils.

Other adverse effects: Not available.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Dispose of in accordance with local regulations. This product may be disposed of at a licensed waste disposal or incineration site.

Container: Emptied containers retain vapour and product residues. Do not re-use the empty container for any other purpose. Puncture containers to prevent re-use. Triple rinse empty containers by inverting the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of a third of that of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner. Dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN No.: 3082

Road Transport ADR/IRD:

Class: 9
Packing group: III
Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Prothioconazole 480 SC).

Maritime Transport IMDG/IMO:

Class: 9
Packing group: III
Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Prothioconazole 480 SC).

Marine Pollutant: YES

Air Transport IATA/ICAO:

Class: 9
Packing group: III
Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Prothioconazole 480 SC).

Special/Environmental Precautions: See sections 6 – 8 of this safety datasheet.

Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code): Not available.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

OHSA 1993 Regulations for Hazardous Chemical Substances.

Relevant information regarding restrictions: None.

EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)

Other national regulations: None.

Chemical Safety Assessment carried out? No.

16. OTHER INFORMATION

Packaging: Packed in 1, 2, 5, 10, 20, 25 and 50 litres plastic containers, labelled according to South African regulations and guidelines.

Additional H-statement (s) (formulants):

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H319: Causes serious eye irritation.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product

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nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.